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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,662	05/14/2001	Yuji Yoshida	01165.0816	7000

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EXAMINER
BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
1771	4

DATE MAILED: 12/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

FILE

Office Action Summary	Application No. 09/831,662	Applicant(s) YOSHIDA ET AL.	
	Examiner Jennifer A Boyd	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 May 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *1* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 - 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumb et al. (US 5,31,667) in view of Kimura et al. (US 4,475,330).

Lumb et al. teaches a composite textile fabric for inner linings, outerwear and exercise and athletic garments (column 1, lines 5 – 30). The composite fabric comprises a first fabric layer of polyester and a second fabric layer comprising at least 25% by weight of a moisture absorbent material such as cotton. The second fabric layer is treated with polyurethane, which gives the moisture absorbent material an elastic quality. The first and second fabric layers are formed concurrently by knitting a plaited construction. (Abstract) As shown in Figure 1, the elastic yarn of the second fabric layer forms a knit loop as required by claim 2.

Lumb et al. teaches the use of a generic polyester yarn but does not teach the specific type of polyester used in the composite fabric.

Kimura et al. teaches a knitted crepe fabric made from a multifilament yarn comprising polytrimethylene terephthalate (Abstract).

Since Lumb et al. lacks specific disclosure to the type of polyester used, it would have been obvious and necessary to one of ordinary skill in the art at the time the invention was made to use an appropriate polyester such as polytrimethylene terephthalate taught by Kimura,

motivated by the expectation of successfully practicing the invention of Lumb. It should be noted that polytrimethylene terephthalate does not yellow, has excellent elastic recovery and good dimensional stability which would be desirable for garment fabric.

As to claim 1, Lumb et al. in view of Kimura et al. discloses the claimed invention except for the composite knit having a knitted fabric density ratio from 1.55 to 2.35. It should be noted that the knitted fabric density ratio is a result effective variable. For example, increasing the density ratio creates a sturdier and tighter fabric. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create a knit having a knitted fabric density ratio from 1.55 to 2.35, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the current invention, it would have been desirable to have a knitted fabric density ratio from 1.55 to 2.35 in order to provide a soft yet durable fabric desirable for high-performance and stretchable clothing.

3. Claims 1 – 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumb (US 5,312,667) in view of Hirt et al. (US 5,782,935).

Lumb teaches a composite textile fabric for inner linings, outerwear and exercise and athletic garments (column 1, lines 5 – 30). The composite fabric comprises a first fabric layer of polyester and a second fabric layer comprising at least 25% by weight of a moisture absorbent material such as cotton. The second fabric layer is treated with polyurethane, which gives the moisture absorbent material an elastic quality. The first and second fabric layers are formed

concurrently by knitting a plaited construction. (Abstract) As shown in Figure 1, the elastic yarn of the second fabric layer forms a knit loop as required by claim 2.

Lumb et al. teaches the use of a generic polyester yarn but does not teach the specific type of polyester used in the composite fabric.

Hirt teaches a process for coloring polytrimethylene terephthalate fibers (Abstract). In Figure 2, it is shown that more colorant is absorbed by polytrimethylene terephthalate (PTMT) fibers than polyethylene terephthalate (PET).

Since Lumb et al. lacks specific disclosure to the type of polyester used, it would have been obvious and necessary to one of ordinary skill in the art at the time the invention was made to use an appropriate polyester such as polytrimethylene terephthalate taught by Hirt, motivated by the expectation of successfully practicing the invention of Lumb. It should be noted that polytrimethylene terephthalate has better dyeability, especially at lower temperatures, which saves time and money in the fabric processing.

As to claim 1, Lumb et al. in view of Hirt et al. discloses the claimed invention except for the composite knit having a knitted fabric density ratio from 1.55 to 2.35. It should be noted that the knitted fabric density ratio is a result effective variable. For example, increasing the density ratio creates a sturdier and tighter fabric. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create a knit having a knitted fabric density ratio from 1.55 to 2.35, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the current invention, it would have been desirable to have a knitted fabric

density ratio from 1.55 to 2.35 in order to provide a soft yet durable fabric desirable for high-performance and stretchable clothing.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lumb et al. (US 5,31,667) in view of Hirt et al. (US 5,782,935) and Morifuji et al. (JP 03-287844 A)

Lumb et al. in view of Hirt et al. teaches the composite fabric may be constructed as a warp knit, such as tricot (Lumb, column 3, lines 1 – 2), but does not teach the specific type of half tricot stitching.

Morifuji et al. teaches knitted half tricot fabric comprising elastic and non-elastic fibers for sportswear (Abstract).

Since Lumb et al. in view of Hirt et al. lacks specific disclosure to the type of tricot stitch used, it would have been obvious and necessary to one of ordinary skill in the art at the time the invention was made to use an appropriate tricot stitch such as a half tricot stitch as taught by Morifuji, motivated by the expectation of successfully practicing the invention of Lumb in view of Hirt. It should be noted that half tricot stitches create a tightly knitted fabric with good dimensional stability.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 703-305-7082. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jennifer Boyd
November 26, 2002

TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700